

REMARKS

Claims 1-12 are pending in the application. These claims were rejected as follows:

Claims / Section	35 U.S.C. Sec.	References / Notes
10	Objection	<ul style="list-style-type: none">• Allowable, but dependent upon a rejected base claim
11	§112, Second Paragraph Indefiniteness	<ul style="list-style-type: none">• Unclear terminology
1, 6, & 12	§102(b) Anticipation	<ul style="list-style-type: none">• Yoshio, et al. (Japanese Publication App. No. 05-309942).
2-5 & 7-9	§103(a) Obviousness	<ul style="list-style-type: none">• Yoshio, et al. (Japanese Publication App. No. 05-309942); and• Schneider, et al. (U.S. Patent No. 4,504,703).
11	§103(a) Obviousness	<ul style="list-style-type: none">• Yoshio, et al. (Japanese Publication App. No. 05-309942); and• Killion, et al. (U.S. Patent No. 5,524,056).

5 Applicant has amended claims 1, 10, and 11 and has also provided discussion for distinguishing the present invention, with claims as amended, from the art cited against it. Claim 13 has been added for consideration by the Examiner. Support for claim 13 can be found in the Specification at [0018] – [0022].

10 Claim 10, indicated as allowable by the Examiner, has been amended to include the limitations of the base claim from which it depends.

Applicant's use of reference characters below is for illustrative purposes only and is not intended to be limiting in nature unless explicitly indicated.

35 U.S.C. §112, SECOND PARAGRAPH, CLAIM 11 INDEFINITENESS

1. *Applicant has amended claim 11 to correspond to the Examiner's interpretation of the claim.*

In the OA, on p. 2, the Examiner indicated that the language used in claim
5 11 was unclear and substituted language more consistent with that disclosed in
the specification in interpreting the claim. Applicant has amended claim 11 to
correspond with the interpretation utilized by the Examiner and that disclosed in
the Specification. Applicant thanks the Examiner for noting this discrepancy and
respectfully requests that the 35 U.S.C. §112 rejection be withdrawn from the
10 application.

35 U.S.C. §102(b), CLAIMS 1, 6, & 12 ANTICIPATION BY YOSHIO

2. *Applicant has amended claim 1 to require that the third air volume
comprises air regions that are entirely unobstructed between the first and second
membranes. None of the prior art references teaches or suggests all of the claim
15 1 limitations, as currently amended.*

In the OA, on p. 3, the Examiner rejected claim 1 based on the teaching of
Yoshio, citing the elements of the claim language and indicating the portions of
Yoshio reading on the respective claim elements. Applicant has amended claim
1 to include the limitation that the third air volume comprises regions that are
20 entirely unobstructed between the first and second membranes. Support for this
amendment is provided by Figure 1 and paragraph [0019] of the present
application.

As disclosed by Yoshio, while the first and second diaphragms 3a, 3b are separated by five air chambers, elements 24-28 respectively, these air regions 24-28 are segregated between the diaphragms 3a, 3b by acoustic resistance material 7a, 7b, 8a, and 8b, such that there is no air region that is entirely
5 unobstructed between the first and second membranes, as required by the amended claim language.

By including this limitation, the third air volume permits a tight coupling (akin to a tight spring effect) between the first and second membranes in the small third air volume necessary in the context of a hearing aid device.
10 Advantageously, there is little or no acoustic impedance that occurs between the membranes, thereby permitting a high selectivity that is not possible in the design disclosed by Yoshio. According to Yoshio, the combination of air chambers with the acoustic resistance material serves to alter the acoustic impedance (noted as a combination of acoustic resistance and acoustic capacitance) and changes the
15 amplitude and phase in the acoustic circuit (see paragraph [0022]).

Based on this Amendment, Applicant asserts that the combined features required by claim 1, as amended, are neither taught or suggested by Yoshio and respectfully requests that the 35 U.S.C. §102 rejection be withdrawn from the application.

20 **35 U.S.C. §103(a), CLAIMS 2-5, 7-9 AND 11 OBVIOUSNESS OVER VARIOUS COMBINATIONS OF YOSHIO, SCHNEITER, AND KILLION**

3. Applicant relies upon the amendments made to claim 1 and the arguments presented above and asserts that the combination of Yoshio,

Schneiter, and Killion fail to teach or suggest the limitations of amended claim 1 by virtue of their dependence from claim 1.


In the OA, on pp. 4-7, the Examiner rejected claims 2-5, 7-9, and 11 based on various combinations of Yoshio, Schneiter, and Killion. As noted
5 above, Applicant has amended claim 1 to require that the third air volume comprise air regions that are entirely unobstructed between the first and second membranes, which clearly serves to distinguish over Yoshio. The Examiner cited Schneiter and Killion as disclosing unrelated features of the dependent claims. It would not be obvious to combine Schneiter with Yoshio, as Schneiter's lack of a
10 second sound entrance port would not permit the microphone to assume directional characteristics.

For these reasons, Applicant asserts that the amended claim language clearly distinguishes over the prior art, and respectfully request that the Examiner withdraw the §103(a) rejection from the present application.

15 **CONCLUSION**

Inasmuch as each of the objections have been overcome by the amendments, and all of the Examiner's suggestions and requirements have been satisfied, it is respectfully requested that the present application be reconsidered, the rejections be withdrawn and that a timely Notice of Allowance be issued in
20 this case.

Respectfully submitted,

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